FINAL MEETING SUMMARY

HANFORD ADVISORY BOARD
RIVER AND PLATEAU COMMITTEE
September 10, 2003
Richland, Washington

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This is only a summary of issues and actions in this meeting. It may not represent the fullness of ideas discussed or opinions given, and should not be used as a substitute for actual public involvement or public comment on any particular topic unless specifically identified as such.

Welcome, Introductions, and Committee Business

Vice-chair Susan Leckband opened the meeting and reviewed the agenda. Dib Goswami, Washington State Department of Ecology (Ecology), announced that Ecology will be hosting a phytoremediation workshop. The workshop will be free for stakeholders and tribal nations. For others the cost will be $550.00. The Ecology Nuclear Waste Program and the Interstate Technology Regulatory Council (ITRC) sponsor the workshop. This workshop will provide an in depth knowledge of phytoremediation.

Mike Thompson, Department of Energy-Richland Office (DOE-RL), announced that headquarters and the contractors will be presenting a seminar on a natural attenuation project occurring at the Savannah River site. This project would be very applicable at Hanford. Anyone who is interested may attend.

Risk Based End States Vision and Implementation Plan

Committee issue manager Dan Simpson presented a brief review of the Hanford Advisory Board's (Board) interaction with the draft Risk Based End States (RBES) Vision and Implementation Plan. When this document was released, the Board put together a team to attend meetings with the agencies, the Constraints and Challenges to Cleanup Team (C3T), and related sub-committees. After a few meetings, the team concluded that this is an appropriate time for the Board and committee to receive an update on the progress in developing the Implementation Plan.

Mike Thompson briefly reviewed the background of the project and the work that has been done to date. Headquarters released policy 455.1 last spring directing each site to look towards an end state as cleanup programs are developed while at the same time

addressing the risk based scenarios in those programs. This policy must be complied with.

Hanford will have to deliver three products. The first is a set of site-specific maps, which include an illustration of what the end state of the site will be. The second is a series of conceptual models of how contamination is released. The third is a variance report from the site manager detailing which cleanup actions might not be in compliance with this policy. There is currently direction from headquarters to send a draft report in October and a final report in January. The site must seek concurrence from the regulatory agencies on the first two products, the maps and conceptual models. The third product, the site manager's report, has generated a fair amount of angst. The headquarters document instructing how to implement this policy has also caused a great deal of angst. However, this policy is not impacting the work at Hanford at this time. The implementation plan is an overreaching document, which resulted from the top-to-bottom review. A disconnect was seen during this process on how sites were approaching cleanup. Many sites were not focusing on what the end state would be. To address the end state vision for Hanford, a Vision End-States Team was developed as part of the Interagency Management Integration Team (IAMIT) process.

The Vision End-States Team has committed to public involvement in this process. Dennis Faulk, Environmental Protection Agency (EPA), has taken the lead in suggesting methods for public involvement. Meetings of the End-States team will be open to anyone who would like to attend and anyone interested in attending should contact Mike. The team fully intends to utilize the committee and hopes to present to the Board in November. There will also be opportunity for interaction with the general public. To achieve this, Dennis has recommended a series of regional workshops and tribal consultations during the first part of December.

The team wants to utilize the Board's Exposure Scenarios Task Force work. While the full report did not receive Board endorsement, those pieces that did receive endorsement will be used. The past C3T team product reaffirmed the foundation of the Task Force work and helped structure a decision strategy within a risk and regulatory framework.

Mike briefly reviewed the items discussed by the team to date. These items have not been discussed with management but rather are being addressed to the committee "real time". These are:

> *The 200 Area Plateau* – within the buffer zone, remediation goals will be for environmental protection and unrestricted recreation and tribal surface use. There will be no human habitation or consumptive groundwater use within this zone. There will be passive institutional controls in place and limited operation and maintenance activities. The core zone will include the consolidation of smaller waste sites to optimize the use of caps/barriers. The design of these caps/barriers will be coordinated with retrieval schedules. After retrieval, the tanks will likely be stabilized in place. The 200 Area groundwater plumes will be managed for containment and the Comprehensive Environmental Response, Compensation and

Liability Act (CERCLA) process will be utilized to establish groundwater Record of Decisions (RODs). The source units will be managed to minimize further groundwater degradation.

100 Area Plateau – The existing RODs will be used for the liquid disposal sites and the burial grounds. Groundwater decisions will be focused on ecosystem protection. Support will be given to Treaty rights and recreation use of the river. The CERCLA process will be initiated to establish "reasonable restoration time-frame" for groundwater, which will mean no consumptive use for the foreseeable future.

300 Area – discussions have included shrinking the "industrial area" to the "fence line"; focusing groundwater decisions on ecosystem protection; and initiating the CERCLA processes to establish a "reasonable restoration time-frame" for groundwater with no consumptive use for the foreseeable future. Lastly, the issue of "Industrial" vs. "Industrial Exclusive" will need to be resolved.

The path forward includes several steps. A clear articulation of the end states for the central plateau and river corridor will be developed. Those risk-based decisions for which the team can and cannot achieve consensus must be identified. Maps and presentation materials must be prepared for Board and Tribal review. Mike stressed that no additional financing has been provided for these activities. The contractors have been asked to assess if they can provide these materials within their current scope of work.

Committee Discussion

- Pam wanted to clarify that there is discussion of shrinking the industrial zone. Mike stated this discussion is occurring with EPA and Ecology. Within the 300 Area, there is a clear industrial core. Outside of that area there are small solid waste burial zones. However the whole of this area is to be cleaned up to industrial standards, which is less protective than full surface cleanup. The team wants to develop an explanation of significant difference to allow the cleanup outside of the core industrial zone to unrestricted surface use standards. Discussions are occurring with the site manager on this issue and these are going well.
- Shelley asked how risk is assigned to waste sites that have not been discovered. Mike Goldstein, EPA, replied the belief is that all the sites have been identified and are in the system with the correct decision documents.
- Tom Stoops asked if the goal of the industrial scenario is to have shovel-ready sites. Mike Goldstein stated the top fifteen feet of dirt will be clean. If the dirt will be removed to a greater depth than this then special precautions may need to be taken.
- Tom asked what types of industries are foreseen in the 300 Area. Mike replied that there is a debate between the Department of Energy (DOE) and the regulatory agencies over what types of industry could be on this site. Would it be an industry that does not exceed the "limits" or would it be a nuclear-based industry? The regulators are desirous of allowing classic industry while the DOE would prefer something like an environmental research laboratory.

- Pam Brown wanted to clarify the policy of DOE is that there will be no future missions at Hanford. Mike Goldstein stated the direction of headquarters twenty years ago was for Hanford to begin a cleanup mission. DOE is viewing cleanup, research, and development issues corporately. This means they are looking to optimize resources across the country, which would necessitate a continuing mission for Hanford. Dennis added that future missions are encouraged for the long-term stewardship of the site. Mike added that the sites have been divided up into fast cleanup and long-term cleanup. There are a number of sites that DOE is trying to close and get off the books, which he believes they will continue to do.
- Dan asked how risk-based criteria will be used to make these decisions. Mike Thompson stated that the risk-based approach considers probable uses and the decisions are made based on those. So, given the land uses, what amount of risk would occur from this use? Dennis clarified that the use of heavy institutional controls will be limited to the central plateau core zone and will be lighter outside of this area. Max Power, Ecology, noted the draft implementation plan calls for risk balancing. This is a case of looking at risk in the near and long-term. Control of the site must be balanced with the uses that are increasingly possible over the long-term.
- Pam asked if the end-state will still include a residential scenario. Mike stated there must be recognition that the site is now part of the national monument. Dennis added that the rural residential scenario was chosen because it would be the most protective for a variety of uses. It was not chosen because it was actually thought someone would farm on this land. Shelley asked if this distinction will be difficult for headquarters to understand. Mike Thompson stated he hopes that when headquarters looks at the reality of the situation at Hanford, it will be evident how minimal the amount of remaining work is. By the time a new path would be chosen, the work would be completed.
- Maynard commented there could be a wide range of opinions on what the "foreseeable future" is. He asked if there has been any discussion on what that timeframe is? Dennis stated the bottom line is that unless someone really wanted to build on the site, "foreseeable future" could be hundreds of years. This determination is the major step from the exposure scenarios task force.
- Dan stated that the term vision implies some of the issues are unclear and may become clearer over time. Mike stated some things are known at this time. The river will be used recreationally, there will be a national monument, and there will be a continuing government presence. The groundwater plumes will continue to exist and there will be a need to assess the ecological implications of this better than has been done previously. It is not believed that the groundwater in the 100 Area will become any worse. What will make a difference in the groundwater are the changing levels of the Columbia River.
- A committee member noted that Board member Dave Johnson often asks what would happen if the dam was breached. Mike Thompson stated that if the dam were breached, there would be an associated management decision so; there would not be the catastrophic flooding scenarios. The breaching of a dam is one of the possible end states.

- Pam stated it is disturbing that DOE may go through a process to justify using an end-state and will want to circumvent CERCLA. Max stated that wherever CERCLA conflicts with state law, CERCLA supercedes. It may be that the decision makers in Washington D.C. believe a rural farming use is ridiculous for the site. However just because it doesn't happen in the beltway does not mean it doesn't happen elsewhere. This brings about the issue of reliance on institutional controls. This reliance needs to be minimized unless there is a very robust set in place.
- Todd Martin noted over the last ten years the Board has learned how to have these discussions and be successful. It is important in this process not to address those issues that have already been fought out and agreed upon. What is important is to take the specific iterative changes to the vision that the Board has developed and discuss those. Particular attention needs to be paid to supporting those items that have not changed. The assumption is the Office of Legacy Management (LM) does not have much of a role in this process. Mike Thompson clarified that theoretically LM will receive the sites in the end so attention needs to be paid to what the requirements will be so that there may be an acceptable transfer.
- Todd asked if the nuts and bolts of site transfer have been sped up by this new vision. Jim Daily, DOE-RL, stated the strategy is to have a well-defined transfer process to ensure the handoff occurs smoothly. The belief is if the strategy were defined in 2004, the gaps between the two organizations would become apparent. LM does not know when the takeover will occur so the Richland Operations office has decided they will prepare now. The current administration has the tendency to make these decisions abruptly. Since portions of the Hanford site could be completed in the near future, RL has done a pre-emptive strike by dealing with the issue at this time. On paper, the turnover will take place in 2012 or 2035.

Regulator Perspectives

- Dennis noted there are three items that are different from what came out of the exposure scenarios task force. These are:

  There will be no consumptive use of groundwater in the near future.

  Creating unrestricted surface use in the buffer zone.

  Creating unrestricted surface use in the other 300 Areas.

  Other than these three items there will not be much new information in coming meetings. The Board can help by weighing in on the issue of general industry vs. exclusive industry.
- Max commented the National Governors Association has been reviewing the draft implementation plan. There are a number of items in the plan that are positive such as the emphasis on viewing the future land use for the site in the context of the surrounding land. Also positive is the recognition that regulator and stakeholder acceptance is crucial in making sure decisions are accepted and work. The plan also acknowledges that any work must obey the CERCLA and the Resource Conservation and Recovery Act (RCRA) processes. There is an increased emphasis on post closure

protectiveness, which has not been seen before. However, there is still lively discussion surrounding the apparent disposition towards standardizing the long-term risks between the sites. In other words, if the cleanup of each site is not approached the same way then they are not equal. In addressing risk balancing, the real issue being addressed is what is important, and that varies person-to-person, state-to-state, and so forth. There needs to be some agreement amongst stakeholders. The document does not acknowledge that uncertainty is part of this process. An action that seems conservative at this time may be more cost effective in the long run. However, DOE does acknowledge that over the last two years the appearance of wanting to undo previous agreements and centralize decisions has dismantled a great deal of trust. DOE may need to think about independent analysis and early involvement of the stakeholders in the Data Quality Objective (DQO) process.

Defense Nuclear Facility Safety Board

Dave Grover, Defense Nuclear Facility Safety Board (DNFSB) site representative for DOE-RL, briefly reviewed several of the issues the DNSFB is monitoring. Some of these issues are:

The Plutonium Finishing Plant: There are several concerns related to this project including the site location, which is to be close to B plant. The deactivation of B plant may cause safety issues for the storage facility. Quality assurance requirements are not in place. The disposition requirements for Yucca Mountain have not been identified yet and subsequently it may be necessary to provide justification for why Hanford's material should be accepted at Yucca Mountain. Additionally, the nuclear safety design criteria have not been described by Fluor or approved by DOE. Future activities in relation to this issue include the developing of requirements and a full review of designs.

Transuranic Waste: The DNSFB is concerned about unvented drums containing Pu238. These drums may not have a disposition path forward and could present a large problem if anything went wrong. Future activities to deal with transuranic waste (TRU) include the TRU retrieval readiness assessment and the Waste Management Complex A/B implementation.

Spent Fuel: The acceleration plans to finish fuel movement by January of 2004 are not realistic at this time but the July 2004 is achievable. The concern is that contamination control is proving difficult. There is a small, localized leak out of the building and more controls and monitoring have been added to address this. Safety basis problems have been occurring due to poor quality work by the engineering and nuclear safety departments. Fluor and DOE are attempting to resolve this issue. Equipment problems are also plaguing the project. Everything is now done manually and a great deal of time is spent repairing systems. The sludge water project was supposed to have started however, as of yet, it has not begun. The contractor is not being self-critical and the adequacy of programs is not being verified before the work starts. The DNSFB is primarily concerned about engineering and

nuclear safety processes not being followed. This includes designs being modified without updating the design basis. Also, the process hazard analysis is not being based on final design. A multitude of issues were found with the engineering work. It was evident that the engineers did not do proper evaluations. As the issues are currently, DOE is re-evaluating the analysis of hazard and scope of work as well as considering changing the scope of work.

Dave suggested two websites for those looking for additional information on the DNFSB and its activities. These are: www.dnfsb.gov and www.deprep.org.

Committee Discussion

- Dick Smith asked if these multi-canister overpacks (MCO's) are acceptable at Yucca Mountain. Dave replied the Spent Fuel Program was developed to ensure the MCO's will be acceptable. Agreements are in place with the spent nuclear fuels program.
- Dick Smith asked what could be done if there was a leak. Dave stated that an attempt would be made to cut the walls of the basin. However, a couple more months of additional data is needed to determine the full scope of the problem.
- Gerry stated he would hope that if there were evidence of a leak, additional steps towards sealing the basin would be taken. Dave reiterated that it could be an external issue. However, this issue will not be ignored. If, in a couple of months the situation is the same, it will be addressed. The spike is not sufficient enough to indicate it is from a new source.
- Shelley Cimon asked if the program is facing a shutdown. Dave replied that DOE and Fluor are completing an evaluation to determine if operations can continue.
- Maynard asked if these problems are being identified early enough. Dave stated that concern is currently being addressed.
- Shelley asked if staffing will be an issue if more manual labor is required. Dave replied that additional staff has been added and production has slowed so staffing should not be an issue.
- Tom asked if part of the problem is that the nuclear engineering design team was not the most seasoned. Dave commented that Hanford has had a long-term problem with this. The staff has come from many different companies and processes and it is difficult to ensure they all work to the same standards.
- Shelley asked how often DNSFB reviews Fluor. Dave stated there is no set schedule. The team goes out to the site to review and monitor what Fluor and DOE are doing for external oversight. DNSFB wants to ensure these issues are being adequately addressed.
- Pam noted the presentation on the Spent Nuclear Fuels Program that the Board received at the June meeting painted a more positive picture. The committee should have been aware of these issues. She asked that when issues such as these come up, the committee be notified. Dennis added that today's information paints a much more dismal picture than what he had been aware of. If DOE is considering removing

Fluor, the situation has become very serious. He also added that many of these issues arose in the last couple of weeks.

Central Plateau Data Quality Objective for Terrestrial Ecological Risk Assessment

Bryan Foley, DOE-RL, presented a brief overview of the progress on the Central Plateau Ecological Data Quality Objective (DQO) for terrestrial ecological risk assessment. The team is currently in the process of determining what additional data is needed to support the remedial investigation/feasibility study (RI/FS) for the RCRA requirements. A few years ago, the 200 East and West waste sites were broken into 23 operable units. Shortly after that, these were consolidated into twelve groupings, which were studied during a remediation feasibility investigation study. A remedial investigation report was issued which focused on 200 North Area and Gable Mountain. Ecology provided comments on this report stating that DOE needed to complete additional ecological work to support the feasibility study and risk assessment. A year and a half was spent developing a new approach, which is the plateau wide approach. The DQO will identify what additional data is needed for each operable unit.

DQO project scope will include evaluating data requirements to characterize potential central plateau terrestrial ecological impacts associated with waste site cleanup decisions. An evaluation will also be completed to determine the need for supplemental data to support ecological risk assessments and final remedy selection decision-making. DOE, EPA, and Ecology will be the decision makers responsible for making any decision regarding the ultimate outcome of this DQO. What is different from the B/C Pilot is that the DQO process will be conducted in steps. Several people will be brought in to look at the work during the process rather than in the B/C pilot where only the final product was reviewed.

Committee Discussion

- Gerry asked if this process will meet the Model Toxics Control Act (MTCA) ecological requirements. Dennis answered that John Price, Ecology, is a part of this process and is fully aware of all the requirements. This process is being completed to fulfill the MTCA requirement. The product resulting from the ecological assessment will fulfill the EPA initial screening requirements but not those of MTCA. Bryan added that the first step of the DQO process is to understand what the issues are for the decision makers and to ensure that the regulators and stakeholders will be involved in this process. John Price will be asked to respond to Gerry's question about MTCA requirements.
- Dennis asked if there will be workshops held on this process and if so when these might be. Bryan replied there are two workshops planned with Board and Trustee participants. These workshops will walk through the DQO process and will be held once more information is available. One workshop will be in the beginning of November and the second in the middle of December. These workshops will provide an opportunity for people to talk through all the information and to set the course for the process in the future.

- Bryan stated the hope is for participants to work collaboratively to reach a resolution. Any unresolved issues will be brought to the decision makers to resolve.

Handouts

- River and Plateau committee meeting agenda, September 10, 2003.
- Risk-Based, End State Cleanup Project, Department of Energy, September 10, 2003.
- Vision-End States Team Progress Report, Vision-End States Team, September 10 2003.
- Observations on Risk Based End States Program, Dan Simpson, September 8, 2003.
- Central Plateau Terrestrial Ecological DQO Schedule and Activity Descriptions,
- Bryan Foley, September 10, 2003.

Attendees

HAB Members and Alternates

Pam Brown	Todd Martin	John Stanfill
Shelley Cimon	Maynard Plahuta	Tom Stoops
Susan Leckband	Dan Simpson	Dave Watrous
Jeff Luke	Richard Smith	

Others

Briant Charboneau, DOE-RL	Rick Bond, Ecology	Nancy B. Myers, BHI
Jim Daily, DOE-RL	Max Power, Ecology	Tom Yount, BNFL
Bryan Foley, DOE-RL	Dennis Faulk, EPA	Moses Jarayssi, CH2MHill
John Sands, DOE-RL	Mike Goldstein, EPA	Liana Herron, EnviroIssues
Yvonne Sherman, DOE-RL	Mike Priddy, WDOH	Penny Mabie, EnviroIssues
Mike Thompson, DOE-RL		Barb Wise, Fluor Hanford